

REMARKS

Claims 1-20 are pending in this application. By this Amendment, claims 19 and 20 are added. Support for claims 19 and 20 may be found at least at page 23, lines 18-25 of the specification. No new matter has been added.

Claims 1-18 are rejected under 35 U.S.C. §102(e) over Iwai et al. ("Iwai "), U.S. Patent No.6,334,080. The rejection is respectfully traversed.

Iwai fails to disclose a control apparatus comprising a communication unit for conducting data communication; and a storage unit including a table storing identification information assigned to the control apparatus and identification information of another control apparatus, as recited in claim 1.

Iwai fails to disclose a control system comprising a plurality of control apparatuses connected to each other to communicate with each other, wherein each of control apparatuses includes a first transmission unit for transmitting identification information of the control apparatus's own to the other control apparatuses; a reception unit for receiving identification information of the other control apparatuses transmitted from the other control apparatuses; and a first storage unit for storing the identification information of the control apparatus's own and the identification information of the other control apparatuses to which registration update information is added in a table of the control apparatus's own, as recited in claim 2.

Iwai fails to disclose a control system comprising a first control apparatus; and a second control apparatus connected to the first control apparatus, wherein each of first and second control apparatuses includes a first transmission unit; a reception unit; and a first storage unit; the first transmission unit of the first control apparatus transmits identification information of the first control apparatus to the second control apparatus; the first transmission unit of the second control apparatus transmits identification information of the second control apparatus to the first control apparatus; the reception unit of the first control

apparatus receives the identification information of the second control apparatus transmitted by the first transmission unit of the second control apparatus; the reception unit of the second control apparatus receives the identification information of the first control apparatus transmitted by the first transmission unit of the first control apparatus; the first storage unit of the first control apparatus stores into a table of the first control apparatus the identification information of the first and second control apparatuses to which registration update information is added; and the first storage unit of the second control apparatus stores into a table of the second control apparatus the identification information of the first and second control apparatuses to which the registration update information is added, as recited in claim 9.

In Iwai, the shared memory units D1 and D2 and inter-CPU communication control units B1 and B2 are integrated in the CPUs 1 and 2, respectively, to realize sharing of the control data (i.e., vehicle speed, engine rotation speed, etc.) between both control units A1 and A1 (Figs. 1A-1C; col. 4, lines 33-37). The shared data is stored in the same storage location in each control unit (Figs. 1A-1C), which is in a storage information definition table, which defines a data length and a storage head address of each shared data (col. 3 lines 25-29). But, the storage head address and the shared data are not identification information assigned to the control apparatus.

Also, the storage information definition table of Iwai does not include a table that stores identification information assigned to the control apparatus and identification information of another control apparatus (Figs. 2 and 9 of Iwai). Further, the storage information definition table described by Iwai does not store the identification information of the control apparatus's own and the identification information of the other control apparatuses to which registration update information is added in a table of the control apparatus's own (Figs. 2 and 9 of Iwai).

Instead, the storage information definition table of Iwai defines a data length and a storage head address of each shared data (i.e., vehicle speed, engine rotation speed, etc.) (col. 3 lines 25-29). Also, the storage information definition table defines a bit location in the storage address for the shared data, which has a data length less than the number of bits which can be stored in one storage address, so that a plurality of shared data may collectively be stored in one storage address (Fig. 2; col. 3, lines 25-33). As shown in Fig. 2 of Iwai, each ROM in the CPUs 1 and 2 stores at a predetermined storage area a storage location definition table in which an identification code (Handle.ID) indicative of the types of the shared data, storage location as storage information indicative of storage location in the shared memories M1 and M2, data length and offset of the shared data indicated by Handle.ID (col. 6, lines 5-11).

But, the Handle.ID does not correspond to identification information of the control apparatus's own and the identification information of the other control apparatuses. Instead, the Handle.ID corresponds to the types of shared data, storage location of the shared memories, and data length (Figs. 2 and 3 of Iwai). In other words, the Handle.ID indicates the shared data (i.e., vehicle speed SPD, engine rotation speed NE), not the identification information of the control apparatuses themselves.

Further, each of the ECUs 20, 30 do not include a first transmission unit to transmit identification information of the control apparatus's own to the other control apparatuses and each of the ECUs 20, 30 do not include a reception unit for receiving identification information of the other control apparatuses transmitted from the other control apparatuses. The ECUs 20, 30 described by Iwai write into shared memories M1, M2, the control data (i.e., vehicle speed SPD, engine rotation speed NE) so that the control data can be shared by the ECUs 20, 30 (Figs. 1B, 3-8; col. 5, lines 4-30). As Iwai describes, the writing request of the vehicle speed SPD uses as an argument the Handle.ID of the vehicle speed SPD and the

data (Data) of the vehicle speed SPD calculated at S100 (Fig. 3; col. 6, lines 60-65). There is no transmitting of identification information of the control apparatus's own to the other control apparatuses or receiving identification information of the other control apparatuses transmitted from the other control apparatuses, between the ECUs 20, 30 of Iwai.

Applicant describes a similar device to Iwai in which a control system equipped with a so-called vehicle LAN in which these control units are connected via a communication line (page 4, lines 22-24 of the specification). For example, a sensor signal detected by the engine control unit is sent via the communication line to another control unit (ABS control unit, etc.), which then can conduct efficient control utilizing the received sensor signal (page 1, line 24 - page 2, line 3 of the specification). However, the information of the ID Code regarding the control apparatus, which is mounted to a vehicle, is only stored in the memory of the control apparatus (page 2, lines 19-21 of the specification). Thus, when a new control apparatus is mounted due to a failure, the information about the control apparatus previously mounted necessarily disappeared without leaving information that the control apparatus was exchanged (page 2, lines 21-25 of the specification). As a result, there is a problem that the exchange and repair history cannot be correctly grasped (page 2, line 25 - page 3, line 1 of the specification).

Applicant's claimed invention addresses these problems by providing, in part, a control apparatus and a storage unit as outlined in claims 1, 2, and 9. As outlined in claims 1, 2, and 9, the identification information of the control apparatus is stored and shared among all the control apparatuses. Iwai fails to disclose or suggest these features and advantages as recited in independent claims 1, 2, and 9.

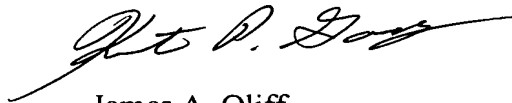
In view of the foregoing, Iwai fails to disclose or suggest each and every feature of Applicant's claimed invention as recited in independent claims 1, 2, and 9 and the rejection under 35 U.S.C. §102 is inappropriate. Because Iwai does not anticipate or suggest the

features of claims 1, 2, and 9, Iwai cannot anticipate or suggest the subject matter of claims 6, 19, and 20, which depend from claim 1, the subject matter of claims 3-8 and 17, which depend from claim 2, and the subject matter of claims 10-15 and 18, which depend from claim 9, for the reasons discussed with respect to claims 1, 2, and 9 and for the additional features recited therein. Thus, it is respectfully requested that the rejection be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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